Quality Wood Treating Co., Inc.
Prairie du Chien, WI 53821
P.O. Box 350
(608) 326-2481

Trade Name: QUALITY WOOD Brand Pressure Treated Wood
(Osmose Brand CCA Pressure Treated Wood with Mold Inhibitor)

SECTION I

MSDS NUMBER	96-Osm
MSDS CODE	Osm
SYNONYMS.	N/A
MANUFACTURED BY·	Licensees/Customers of Osmose, Inc
DIVISION	Wood Preserving Division
EPA REGISTRATION NUMBER	N/A
VENDOR	N/A
EMERGENCY PHONE	(716) 882-5905
OTHER CALLS	(770) 228-8434
ADDRESS	980 Ellicott Street, Buffalo, New York 14209
MSDS PREPARED BY	Ten Muchow
DATE PREPARED	June 19, 1990
DATE LAST REVISED	June 17, 1999

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

TRADE NAME· OSMOSE BRAND PRESSURE TREATED WOOD INGREDIENT NAME	CAS	OSHA PEL	ACGIH TLV	OTHER	%
Arsenic Pentoxide	1303-28-2	0 01 mg/M³ as As	0 01 mg/M³ as As	N/A	See chart below
Copper Oxide	1317-39-1	1 0 mg/M³ as Cu	1 0 mg/M³ as Cu	N/A	See chart below
Trivalent Chromium	1308-38-9	1 0 mg/M³ as Cr	0 5 mg/M³ as Cr	N/A	See chart below
Wood Dust (if machined)	N/A	5 mg/m³	5 mg/m³	N/A	See chart below

PERCENTAGE OF HAZARDOUS INGREDIENTS – COMPONENT %

	25 pcf	4 pcf	6 pcf	1 0 pcf	2 5 pcf
Arsenic Pentoxide	3%	4%	6%	1%	2 6%
Copper Oxide	15%	2%	3%	6%	1 3%
Chromium Tnoxide	4%	6%	9%	1 4%	3 3%
Wood Dust*	84 28%	83 98%	83 47%	82 45%	78 88%

**This represents the maximum amount of wood dust that could be generated if the wood was completely machined*

TRADE NAME ppm Mold Inhibitor in Wood INGREDIENT NAME	CAS	OSHA PEL	ACGIH TLV	OTHER	ppm
5-Chloro-2-methyl-4-isothiazolin-3-one	26172-55-4	N/A	N/A	100 pounds	4-11
2 Methyl-4-isothiazolin-3-one	2682-20-4	N/A	N/A	100 pounds	1-4
Magnesium chloride	7786 30-3	N/A	N/A	N/A	3-9
Magnesium nitrate	10377-60-3	N/A	N/A	N/A	5-16

★ ADDITIONAL INFORMATION ★

None of the above ingredients of Cleanwood Mold Inhibitor are considered carcinogens

CCA treated wood with mold inhibitor contains less than one percent of the chemicals listed in the "ppm Mold Inhibitor in Wood" table

States and territories operating their own OSHA programs may have more protective PEL levels Contact your state agency to determine the status of the PELs in your state

The above values may vary due to the variability of treatment and the natural variability of wood

The Arsenic Pentoxide in this product is not subject to OSHA arsenic standard 29 CFR 1910 1018

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SECTION III - CHEMICAL CHARACTERISTICS

BOILING POINT	MELTING POINT	FREEZING POINT	SPECIFIC GRAVITY (H_2O = 1)	PERCENT VOLATILE BY VOLUME	THEORETICAL VOC CONTENT (PERCENT OF WEIGHT)
N/A	N/A	N/A	As Wood	N/A	N/A

WEIGHT PER GALLON	pH	VAPOR PRESSURE	VAPOR DENSITY	DENSITY	EVAPORATION RATE BASIS (N-BUAC) = 1
N/A	N/A	N/A	N/A	N/A	N/A

SOLUBILITY IN WATER Highly Insoluble	REACTIVITY IN WATER N/A
APPEARANCE AND ODOR Green-yellow wood	

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	METHOD	FLAMMABLE LIMITS IN AIR (%)	AUTOIGNITION TEMPERATURE
N/A	N/A	N/A	N/A

NFPA CODES			HMIS CODES:		
	HEALTH	1		HEALTH	1
	FLAMMABILITY	1		FLAMMABILITY	1
	REACTIVITY	0		REACTIVITY	0
	OTHER	N/A		PROTECTION	B
EXTINGUISHER MEDIA	Water fog, foam, CO_2, dry chemical				

**B = safety glasses and gloves*

SPECIAL FIRE FIGHTING PROCEDURES Toxic vapors from wood and preservative may be given off in a fire Wear full protective equipment and self-contained air unit
UNUSUAL FIRE AND EXPLOSION HAZARDS N/A

SECTION V - REACTIVITY DATA

IS THIS CHEMICAL STABLE UNDER NORMAL CONDITIONS OF HANDLING/STORAGE (Y/N)? Y
CONDITIONS TO AVOID (REGARDING STABILITY) N/A
INCOMPATIBILITY (MATERIALS TO AVOID) N/A
HAZARDOUS DECOMPOSITION PRODUCTS Thermal Ash will contain free arsenic and chromium and may be toxic
HAZARDOUS POLYMERIZATION POSSIBLE (Y/N)? N
CONDITIONS TO AVOID (REGARDING POLYMERIZATION) N/A

SECTION VI - HEALTH HAZARDS

ROUTES OF ENTRY Eye and/or skin contact to wood, inhalation of dust
SIGNS AND SYMPTOMS OF ACUTE OVEREXPOSURE **EYE** - Treated or untreated wood dust may cause mechanical irritation **SKIN** - Handling may cause splinters Prolonged and/or repeated direct contact with treated or untreated wood dust may cause mild, transient irritation Some species of untreated wood dust may cause allergic contact dermatitis in sensitive individuals See COMMENTS **INHALATION** - Finely divided treated or untreated wood dust may cause nose, throat or lung irritation and other respiratory effects Burning treated wood can release toxic metals into ash and possible smoke Some species of untreated wood dust may cause allergic respiratory response in sensitive individuals See COMMENTS **INGESTION** - Not anticipated to be a health problem A single ingestion by a small child of a large amount (approximately 2 5 oz or 6 cubic inches) of treated wood dust may require immediate medical attention See NOTE TO PHYSICIAN and COMMENTS
NOTE TO PHYSICIAN If one ounce of treated wood dust per 10 lbs of body weight are ingested, acute arsenic intoxication is a possibility
CHRONIC OVEREXPOSURE See the above exposure comments
CHEMICAL LISTED AS A CARCINOGEN OR POTENTIAL CARCINOGEN **See COMMENTS section on page 3.**

- NATIONAL TOXICOLOGY PROGRAM (Y/N) Y
- IARC MONOGRAPHS (Y/N) Y
- OSHA (Y/N) Y

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE Individuals with pre-existing disease in or a history of ailments involving the skin, kidney liver respiratory tract eyes or nervous system are at a greater than normal risk of developing adverse effects from woodworking operations with this product

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EMERGENCY AND FIRST AID PROCEDURES

EMERGENCY PHONE NUMBER OF MANUFACTURER: (716) 882-5905

1 INHALATION	Remove from exposure If breathing has stopped or is difficult, administer artificial respiration or oxygen as indicated Seek medical aid
2 EYE CONTACT	Gently flush any particles from the eye with large amounts of cold water DO NOT RUB EYES
3 SKIN CONTACT	Rinse skin free of sawdust material with water to avoid abrasion of skin DO NOT RUB until skin is free of material then wash thoroughly with soap and water
4 INGESTION	Give 1 - 2 glasses of milk or water to victim if conscious and alert Induce vomiting or give 1 - 2 oz (30 - 60 g) activated charcoal in water to victim if conscious and alert. See COMMENTS below

COMMENTS

Individuals with pre-existing disease in or a history of ailments involving the skin, kidney, liver, respiratory tract, eyes, or nervous system are at a greater than normal risk of developing adverse effects from woodworking operations with this product

UNTREATED WOOD DUST OR SAWDUST The principal health effects reported from occupational exposure to sawdust or wood dust generated from untreated wood are dermatitis, rhinitis, conjunctivitis, reduced or suppressed mucociliary clearance rates, chronic obstructive lung changes, and nasal sinus cancer Skin and respiratory sensitization have been reported from exposure to hardwood dust Epidemiological studies have been reported on carcinogenic risks of employment in the furniture making industry, the carpentry industry, and the lumber and sawmill industry IARC has determined that there is sufficient evidence to classify untreated wood dust as a nasal carcinogen in humans (Ref Monograph 62)

CCA TREATED WOOD Sawdust from CCA treated wood has been shown not to cause chromosome changes in mice fed sawdust or birth defect in mice or rabbits receiving sawdust in their feed or applied to their skin

Recreational exposure to children using CCA treated wood playground equipment has been evaluated The results of this study indicate that the amount of arsenic transferred from the wood surface to the child is within the normal variation of total arsenic exposure to children and that the maximum risks of skin cancer associated with the exposure approximates the skin cancer risk from the sunlight experienced during play periods

Leaf, stem, and fruit of grape plants grown adjacent to CCA treated wood poles did not take up preservative components from the poles above background levels (limit of detection 0.2 and 0.05 ppm for chrome and arsenic, respectively)

CCA PRESERVATIVE The effects of industrial exposure to the chrome-copper-arsenic preservative used to treat CCA wood has been evaluated in three independent epidemiology studies In each case the authors concluded that workers exposed on a daily basis to these preservatives were at no increased risk of death or disease as a result of their exposure

Ingestion of components (arsenic and chromium) of the liquid preservative have caused toxicity to pregnant laboratory animals and their fetuses Reproductive performance in laboratory animals was not affected by feeding diets containing arsenic

IARC, NTP and OSHA do not consistently distinguish among arsenic or chrome species but list inorganic arsenic and chromium and certain chromium compounds as human carcinogens Cancers in humans have followed from long term 1) consumption of Fowler's Solution, a medicinal trivalent arsenical, 2) inhalation and skin contact with inorganic trivalent arsenic sheep-dust, 3) the combined inhalation of arsenic trioxide (trivalent arsenical) sulfur dioxide, and other particulates from ore smelting in copper production, 4) occupational exposure to nonwater-soluble hexavalent chromium This product is not manufactured with trivalent arsenic or nonwater-soluble hexavalent chromium compounds but may contain some trivalent arsenic as a result of reactions occurring after wood treatment

This product must not come in contact with food or feed Showering and clothing change recommended at the end of each shift

No known ingredients which occur at greater than 0 1%, other than those listed above, are listed as a carcinogen in the IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, the NTP Annual Report on Carcinogens or OSHA 29 CFR 1910 1001-1047 Subpart Z Toxic and Hazardous Substances (Specifically Regulated Substances)

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

US DOT SHIPPING DESCRIPTION Not regulated by Department of Transportation (DOT)

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE Use good personal hygiene, wash before eating and smoking Specify only pressure treated wood treated with "oxide" CCA preservatives and free from excess surface deposits of preservatives Avoid handling and machining of freshly treated "wet" wood unless specified safety precautions are observed

OTHER PRECAUTIONS Do not use until Consumer Information Sheet (CIS) is read and understood Wash exposed areas promptly and thoroughly after skin contact from working with this product and before eating, drinking, using tobacco products or rest rooms Do not wear contact lens without proper eye protection when using them Wear dust mask when cleaning up sawdust Read and follow CIS instructions

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Maintain a clean workplace Clean up scrap lumber and sawdust

WASTE DISPOSAL METHODS Dispose waste material in an approved landfill DO NOT BURN! Ash may be toxic and a hazardous waste, combustion vapors may be toxic Dispose in accordance with all Federal, State, and Local laws

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SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION When machining, a dust mask is recommended If exposure limits are exceeded, use NIOSH approved respirator Refer to the OSHA Arsenic Standard in 29 CFR 1910 1018 for appropriate respirator if the OSHA PEL is exceeded for arsenic
VENTILATION REQUIREMENTS In enclosed environments, ventilation may be required in order to maintain exposure limits
LOCAL EXHAUST N/A
MECHANICAL When machining.
SPECIAL N/A
OTHER N/A
PROTECTIVE GLOVES Rubber when handling wet wood Leather to avoid splinters
EYE PROTECTION To protect from sawdust.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT As necessary to limit exposure when handling wet wood
WORK/HYGIENIC PRACTICES Use good personal hygiene. Wash hands before eating or smoking

ADDITIONAL INFORMATION

CALIFORNIA'S PROPOSITION 65 This product contains a chemical known to the State of California to cause cancer and reproductive toxicity

WHY STORAGE AND USE OF OSMOSE BRAND PRESSURE TREATED WOOD DOES NOT REQUIRE REPORTING THE SAME TO STATE AUTHORITIES UNDER THE PROVISIONS OF THE SUPERFUND AMENDMENT AND REAUTHORIZATION ACT OF 1986 (SARA)

Title III of SARA requires companies to report to their state agencies the storage of specified chemicals stored in volumes equal to or greater than the Threshold Planning Quantity (TPQ) One of the specified chemicals is arsenic pentoxide

The MSDS for Osmose Brand Pressure Treated Wood clearly indicates that the product contains arsenic pentoxide THIS IS INCORRECT, but for a reason Osmose Brand Pressure Treated Wood contains arsenic in the form of a chromium arsenate complex with the wood as a result of the fixation chemical reactions of chromated copper arsenate and wood

The MSDS refers to arsenic pentoxide because the AWPA Standard calls for the expression of chromated copper arsenate retention in the treated wood on the oxide basis, regardless of the form of chemical used to formulate the chromated copper arsenate wood preservative These chemical forms are always expressed on the oxide basis, i.e , chromic oxide (CrO_3), copper oxide (CuO) and arsenic pentoxide ($As2O_5$) The arsenic as found in Osmose Brand Pressure Treated Wood is a chromium copper arsenate complex However, in order to comply with the AWPA Standards, the form of arsenic is merely expressed as the arsenic pentoxide equivalent on the MSDS

Since Osmose Brand Pressure Treated Wood does not contain arsenic pentoxide but rather a chromium arsenate complex, you are not required to report your storage of the same under Title III of SARA However, if you want, you may do so by merely contacting your state authorities Find out where your local emergency planning unit is headquartered and contact them to determine how you can assist in the development of a local emergency plan.

If your state inspector has any questions concerning the above information, please have him contact Gerald L Daugherty, Osmose Corporate Counsel, at (520)778-2310

N/A = Not Applicable